

Forklift Steer Axles

Axles are defined by a central shaft which turns a wheel or a gear. The axle on wheeled motor vehicles may be attached to the wheels and revolved with them. In this particular situation, bearings or bushings are provided at the mounting points where the axle is supported. Conversely, the axle can be connected to its surroundings and the wheels can in turn revolve around the axle. In this case, a bushing or bearing is placed in the hole in the wheel to enable the wheel or gear to rotate around the axle.

With cars and trucks, the term axle in some references is used casually. The word normally refers to the shaft itself, a transverse pair of wheels or its housing. The shaft itself turns along with the wheel. It is frequently bolted in fixed relation to it and called an 'axle shaft' or an 'axle.' It is likewise true that the housing surrounding it that is normally referred to as a casting is also referred to as an 'axle' or sometimes an 'axle housing.' An even broader definition of the term means every transverse pair of wheels, whether they are connected to one another or they are not. Thus, even transverse pairs of wheels in an independent suspension are frequently called 'an axle.'

The axles are an important part in a wheeled vehicle. The axle serves to transmit driving torque to the wheel in a live-axle suspension system. The position of the wheels is maintained by the axles relative to one another and to the motor vehicle body. In this system the axles must even be able to bear the weight of the motor vehicle plus any cargo. In a non-driving axle, like for example the front beam axle in various two-wheel drive light trucks and vans and in heavy-duty trucks, there will be no shaft. The axle in this condition works only as a steering component and as suspension. Various front wheel drive cars have a solid rear beam axle.

The axle works only to transmit driving torque to the wheels in several types of suspension systems. The angle and position of the wheel hubs is part of the operating of the suspension system seen in the independent suspensions of new SUVs and on the front of numerous brand new cars and light trucks. These systems still consist of a differential but it does not have connected axle housing tubes. It can be attached to the motor vehicle frame or body or likewise can be integral in a transaxle. The axle shafts then transmit driving torque to the wheels. The shafts in an independent suspension system are like a full floating axle system as in they do not support the vehicle weight.

The motor vehicle axle has a more vague classification, meaning that the parallel wheels on opposing sides of the vehicle, regardless of their type of mechanical connection to one another.